

WO 00/57764

15

PCT/NL00/00198

Claims

1. A device for treating a surface, in particular a textile surface or a leather surface, such as, for instance, the upper surface of leather shoes, with a liquid substance, which device comprises a holder with a reservoir for this substance and with a sponge-like body via which the substance absorbed from the reservoir can be spread on the surface, characterized in that between the reservoir and the sponge-like body there is at least one receiving chamber having an inflow opening communicating with the reservoir, which inflow opening is closed in the condition of rest of the device and can be opened at a movement of the sponge-like body with respect to a plane with which this body is contacted, while from the receiving chamber the substance is absorbed by the sponge-like body with delay.
5. 2. A device according to claim 1, characterized in that the dosed amount of liquid substance from a receiving chamber, each time after it has been filled via the inflow opening, has a value ranging between 0.01 and 3 ml, preferably between 0.05 and 1 ml, and which is in particular about 0.1 ml.
10. 3. A device according to claim 1 or 2, characterized in that there is a dosing element extending in the receiving chamber which, at a movement of the sponge-like body with respect to and in contact with the surface to be treated, effects that liquid substance can be absorbed by the sponge-like body.
15. 4. A device according to any of the preceding claims, characterized in that the receiving chamber is bounded by the dosing element and a surface of the sponge-like body, and the inflow opening can be released by a tilting movement of the dosing element, in particular as a result of a lateral movement of the sponge-like body over the surface to be treated.
20. 5. A device according to any of claims 1-3, characterized in that the receiving chamber is bounded by the dosing element and the housing of this dosing element and is provided with an outflow opening via which the liquid substance can be supplied to the sponge-like body, the inflow opening being

WO 00/57764

16

PCT/NL00/00198

larger than the outflow opening, and the inflow opening being releasable by a movement of the sponge-like body with respect to the surface to be treated.

6. A device according to claim 5, characterized in that the inflow opening is released by moving the dosing element away from the surface to be treated, in particular as a result of the compression of the sponge-like body on the surface to be treated.

7. A device according to claim 6, characterized in that the dosing element is movable against spring action in the direction away from the surface to be treated.

10 8. A device according to any of claims 5-7, characterized in that there is an aeration opening which connects the receiving chamber with a space between the receiving chamber and the sponge-like body.

9. A device according to any of claims 5-8, characterized in that the outflow opening is formed by a gap between the housing of the receiving 15 chamber and the dosing element extending therethrough.

10. A device according to claim 9, characterized in that the gap is annular.

11. A device according to any of the preceding claims, characterized in that there are several, in particular two, receiving chambers.

20 12. A device according to claim 11, characterized in that the receiving chamber or receiving chambers is/are at least partly arranged in the sponge-like body.

13. A device according to any of the preceding claims, characterized in that the thickness, density and structure of the sponge-like body is such that 25 between the outflow of the substance from the outflow opening and the arrival of the substance at the outer surface layer of the sponge-like body there is a time delay corresponding to at least the time between two, preferably at least six, successive times the device is operated.

14. A device according to claim 13, characterized in that the sponge-like 30 body, before the device is put into use, is impregnated with a liquid substance.

WO 00/57764

17

PCT/NL00/00198

15. A device according to any of the preceding claims, characterized in that the holder or at least part of the holder and preferably the reservoir or a part thereof is made of a transparent material or is provided with a window.

16. A device for treating a surface, in particular a textile surface or a leather surface, such as, for instance, the upper surface of leather shoes, with a liquid substance, which device comprises a holder with a reservoir for this substance and with a sponge-like body via which the substance absorbed from the reservoir can be spread on the surface, characterized in that the holder or at least part of the holder and preferably the reservoir or a part thereof is made of a transparent material or is provided with a window.

17. A device according to claim 16, characterized in that between the reservoir and the sponge-like body there is at least one receiving chamber with an inflow opening communicating with the reservoir, which inflow opening is closed in the condition of rest of the device and can be opened at a movement of the sponge-like body with respect to a surface with which this body is contacted, while from the receiving chamber the substance is absorbed by the sponge-like body with delay.

18. A device according to any of claims 1-15 or 17, characterized in that the viscosity of the substance is, on the one hand, sufficiently low so that the substance can pass the inflow opening and is, on the other hand, sufficiently high so that the substance does not leak from the sponge-like body when no force is exerted thereon.

19. A device according to claim 18, characterized in that after the outflow from the receiving chamber the substance is subjected to a change of viscosity.

20. A device according to claim 18 or 19, characterized in that the viscosity of the substance ranges between 500 and 20,000 mm²sec⁻¹, in particular between 500 and 9,000 mm²sec⁻¹.

21. A device according to any of claims 18-20, characterized in that the substance contains an active component having a relatively high viscosity.

WO 00/57764

PCT/NL00/00198

18

preferably greater than 5,000 mm²sec⁻¹, in particular greater than 10,000 mm²sec⁻¹, and an auxiliary component having a relatively low viscosity, preferably less than 5,000 mm²sec⁻¹, in particular less than 2,000 mm²sec⁻¹.

22. A device according to any of claims 18-21, characterized in that the substance in the reservoir for treating a leather surface, such as, for instance, the upper surface of leather shoes, comprises at least one first component imparting a shine to the leather as well as at least one second component possessing properties for spreading the substance over the leather surface.

23. A device for treating a surface, in particular a leather surface, such as, for instance, the upper surface of leather shoes, with a liquid substance, which device comprises a holder with a reservoir for this substance and with a sponge-like body via which the substance absorbed from the reservoir can be spread on the surface, characterized in that the substance comprises at least one first component imparting a shine to the leather as well as at least one second component possessing properties for spreading the substance over the leather surface.

24. A device according to claim 22 or 23, characterized in that the first component consists of a polydimethyl silicone having a relatively high viscosity, preferably greater than 5,000 mm²sec⁻¹, in particular greater than 10,000 mm²sec⁻¹, and the second component consists of polydimethyl silicone, which may or may not be aminofunctional, having a relatively low viscosity, preferably less than 5,000 mm²sec⁻¹, in particular less than 2,000 mm²sec⁻¹.

25. A device according to claim 24, characterized in that as third component a non-reactive aminofunctional polydimethyl silicone is added to the substance.

26. A device according to any of claims 22-25, characterized in that a pigment, in particular a water-dispersible pigment, is provided in the sponge-like body, at the bottom of the space in the sponge-like body where a receiving chamber is located, or in a receiving chamber itself.

WO 00/57764

PCT/NL00/00198

19

27. A device according to claim 26, characterized in that the pigment is transported by the substance from the reservoir to the outer surface layer of the sponge-like body.
28. A device according to any of claims 22-27, characterized in that the 5 pigment is dispersed in the substance contained in the reservoir.
29. A device according to any of claims 22-28, characterized in that a pigment dispersed in a polar solvent, such as an alcohol or an ether, in particular a glycol ether, or a coloring agent dissolved therein is added to the substance in the reservoir.
- 10 30. A device according to any of claims 22-28, characterized in that a pigment dispersed in a non-polar solvent, such as white spirits, or a coloring agent dissolved therein is added to the substance in the reservoir.